Using a DNA sequence encoding an anti-bacterial peptide from a Diptera insect, the method comprising the steps of: transforming a plant cell by introducing the DNA sequence encoding the anti-bacterial peptide from the Diptera insect; and regenerating the transformed plant cell into a transgenic plant expressing the anti-bacterial peptide.

22. (New) The method according to claim 21, wherein the pathogenic fungi are Rhizoctonia solani, Pythium aphanldermatum, and Phytophthora infestans.

Signal 23. (New) The method according to claim 21, wherein the anti-bacterial peptide from the Diptera insect is Sarcotoxin la.

- 24. (New) The method according to claim 21, wherein the DNA sequence encoding the anti-bacterial peptide from the Diptera insect is introduced into the plant cell in a form of an expression vector comprising an expression cassette comprising the DNA sequence encoding the anti-bacterial peptide from the Diptera insect operably linked to a first plant promoter and a drug resistance gene operably linked to a second plant promoter which is constitutively expressed, wherein the first promoter and the second promoter are positioned adjacent to each other.
- 25. (New) The method according to claim 21, wherein the DNA sequence encoding the anti-bacterial peptide from the Diptera insect is operably linked to a plant gene via a hinge region of a tobacco chitinase gene.
- 26. (New) The method according to claim 21, wherein the DNA sequence encoding the anti-bacterial peptide from the Diptera insect is operably linked to a signal sequence from a plant gene.

27. (New) The method according to claim 21, wherein the first plant promoter is an inducible promoter.



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28. (New) The method according to claim 27, wherein the inducible promoter is a promoter induced by stress.

- 29. (New) The method according to claim 25, wherein the promoter induced by stress is a promoter of the tobacco PR-la gene.
- 30. (New) The method according to claim 21, wherein the expression cassette has a terminator of the tobacco PR-la gene.
- 31. (New) The method according to claim 21, wherein the constitutively expressed promoter is the Cauliflower mosaic virus 35S promoter.
- 32. (New) A plant which confers resistance to pathogenic fungi, the plant comprising an expression vector comprising an expression cassette comprising a DNA sequence encoding an anti-bacterial peptide from a Diptera insect operably linked to an inducible promoter and a drug resistance gene operably linked to a constitutively expressed promoter, wherein the inducible promoter and the constitutively expressed promoter are positioned adjacent to each other.
- 33. (New) The plant according to claim 32, wherein the pathogenic fungi are Rhizoctonia solani, Pythium aphanidermatum and Phytophthora infestans.
- 24. (New) The plant according to claim 32, wherein the anti-bacterial peptide from the Diptera insect is Sarcotoxin la.
- 35. (New) The plant according to claim 32, wherein the DNA sequence encoding the anti-bacterial peptide from the Diptera insect is operably linked to a plant gene via a hinge region of a tobacco chitinase gene.

